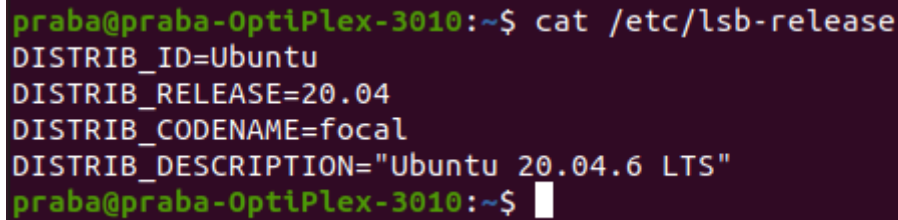


1. Install and configure MongoDB in local machine.

Procedure:

Step 01: Platform Support

> cat /etc/lsb-release



```
praba@praba-OptiPlex-3010:~$ cat /etc/lsb-release
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=20.04
DISTRIB_CODENAME=focal
DISTRIB_DESCRIPTION="Ubuntu 20.04.6 LTS"
praba@praba-OptiPlex-3010:~$
```

Step 02: Import the public key used by the package management system

```
> sudo apt-get install gnupg curl
> curl -fsSL https://www.mongodb.org/static/pgp/server-7.0.asc
| \sudo gpg -o /usr/share/keyrings/mongodb-server-7.0.gpg \--
dearmor
```

Step 03: Create a list file for MongoDB

```
for 22.04 LTS ("Jammy") > echo "deb [ arch=amd64,arm64
signed-by=/usr/share/keyrings/mongodb-server-7.0.gpg ]
https://repo.mongodb.org/apt/ubuntu jammy/mongodb-org/7.0
multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-org-
7.0.list
```

```
for 20.04 LTS ("Focal") > echo "deb [ arch=amd64,arm64
signed-by=/usr/share/keyrings/mongodb-server-7.0.gpg ]
https://repo.mongodb.org/apt/ubuntu focal/mongodb-org/7.0
multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-org-
7.0.list
```

Step 04: Reload local package database

```
> sudo apt-get update
```

Step 05: Install the MongoDB packages

```
> sudo apt-get install -y mongodb-org
> echo "mongodb-org hold" | sudo dpkg --set-selections
```

```

> echo "mongodb-org-database hold" | sudo dpkg --set-
selections
> echo "mongodb-org-server hold" | sudo dpkg --set-selections
> echo "mongodb-mongosh hold" | sudo dpkg --set-selections
> echo "mongodb-org-mongos hold" | sudo dpkg --set-selections
> echo "mongodb-org-tools hold" | sudo dpkg --set-selections

```

Step 06: Select the appropriate tab below based on the result:

```
> ps --no-headers -o comm 1
```

```

praba@praba-OptiPlex-3010:~$ ps --no-headers -o comm 1
systemd
praba@praba-OptiPlex-3010:~$

```

systemd (systemctl):

```

> sudo systemctl start mongod
> sudo systemctl daemon-reload
> sudo systemctl status mongod
> sudo systemctl enable mongod
> mongosh

```

System V Init (service):

```

> sudo service mongod start
> sudo service mongod status
> mongosh

```

```

praba@praba-OptiPlex-3010:~$ mongosh
Current Mongosh Log ID: 661691f55be10be132ef634a
Connecting to:      mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.3
Using MongoDB:      7.0.8
Using Mongosh:      2.2.3

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

-----
The server generated these startup warnings when booting
  2024-04-10T18:29:35.923+05:30: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/production-notes-filesystem
  2024-04-10T18:29:36.498+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
  2024-04-10T18:29:36.498+05:30: vm.max_map_count is too low
-----
test>

```

2. Download and Install Compass



Step 01: Download Compass <https://www.mongodb.com/try/download/compass>

[Learn more](#)

Version
1.42.5 (Stable)

Platform
Ubuntu 64-bit (16.04+)

Package
deb

Download  Copy link More Options 


Step 02: Install .dpkg software.


- > cd Downloads/
- > sudo dpkg -i mongodb-compass_<version>_amd64.deb

```
praba@praba-OptiPlex-3010:~$ cd Downloads/
praba@praba-OptiPlex-3010:~/Downloads$ sudo dpkg -i mongodb-compass_1.42.5_amd64.deb
[sudo] password for praba:
Selecting previously unselected package mongodb-compass.
(Reading database ... 183734 files and directories currently installed.)
Preparing to unpack mongodb-compass_1.42.5_amd64.deb ...
Unpacking mongodb-compass (1.42.5) ...
Setting up mongodb-compass (1.42.5) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for desktop-file-utils (0.24-1ubuntu3) ...
Processing triggers for mime-support (3.64ubuntu1) ...
praba@praba-OptiPlex-3010:~/Downloads$
```

- Connect to the local DB.

Connect Edit View Help

Compass 



New connection 

Saved connections

Recents

New Connection

Connect to a MongoDB deployment

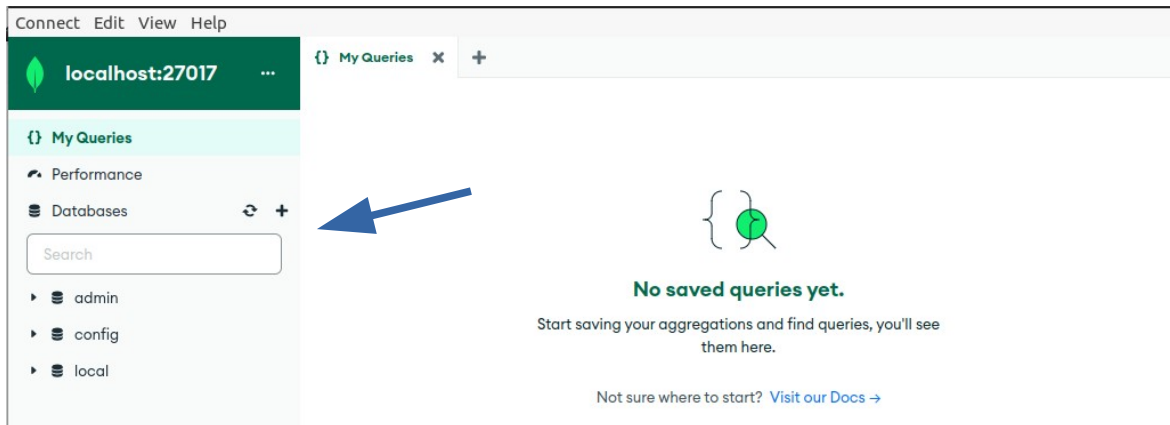
URI  Edit Connection String 

mongodb://localhost:27017/

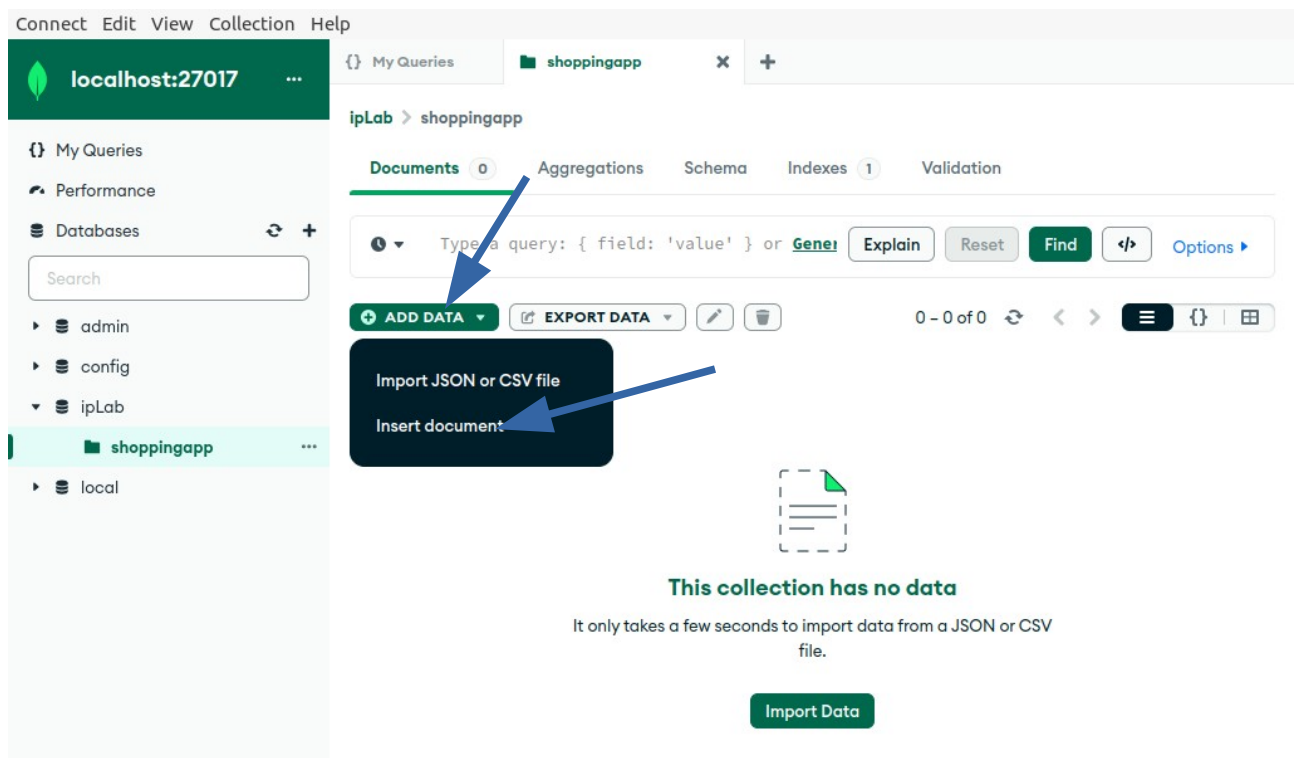
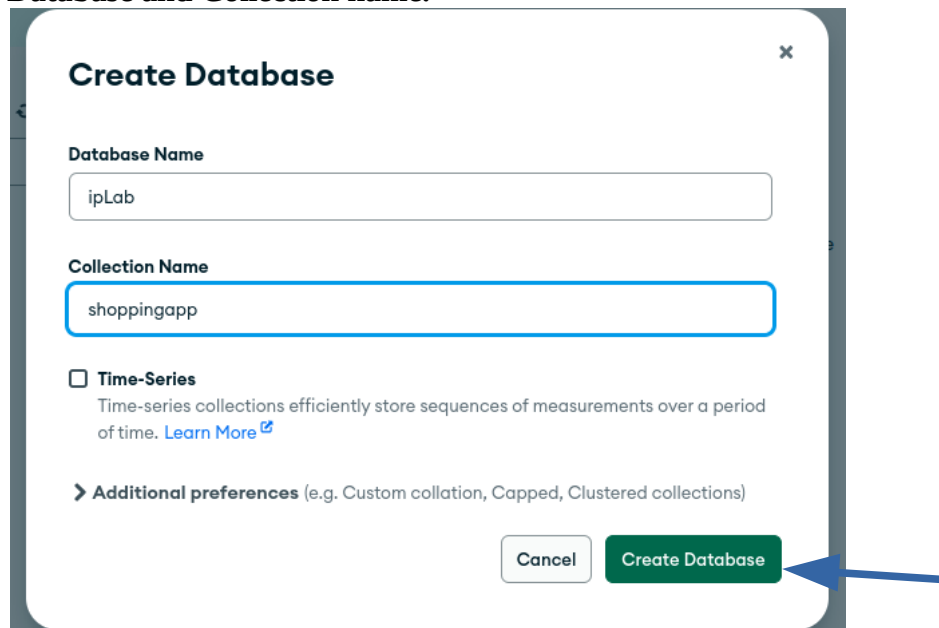
Advanced Connection Options

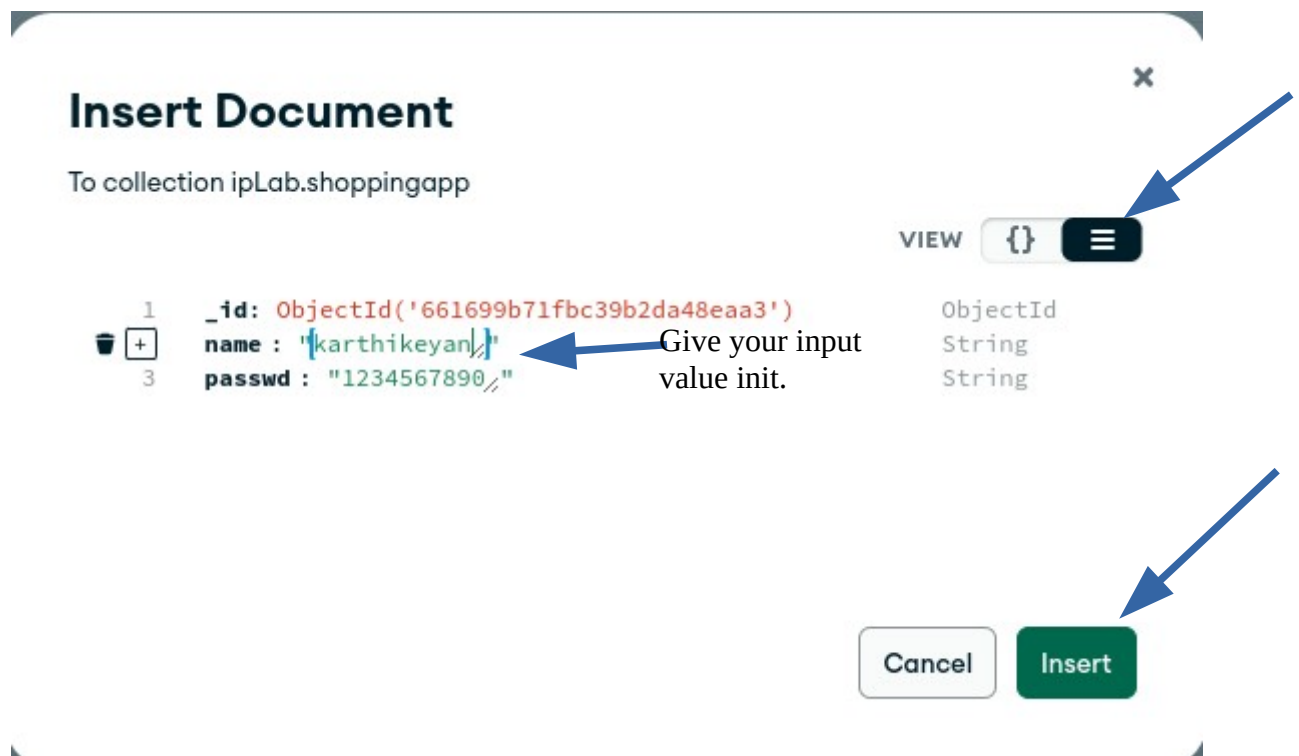
Save Save & Connect Connect

- Create New Database.



- Give name for Database and Collection name.



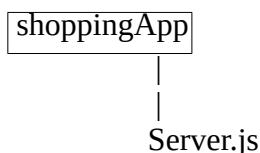


3. Create a server.js file

Install node21

```
> sudo mkdir -p /etc/apt/keyrings
> curl -fsSL https://deb.nodesource.com/gpgkey/nodesource-repo.gpg.key | sudo gpg --dearmor -o /etc/apt/keyrings/nodesource.gpg
> echo "deb [signed-by=/etc/apt/keyrings/nodesource.gpg] https://deb.nodesource.com/node_21.x nodistro main" | sudo tee /etc/apt/sources.list.d/nodesource.list
> sudo apt update
> sudo apt install nodejs -y
> node --version
```

Project Structure



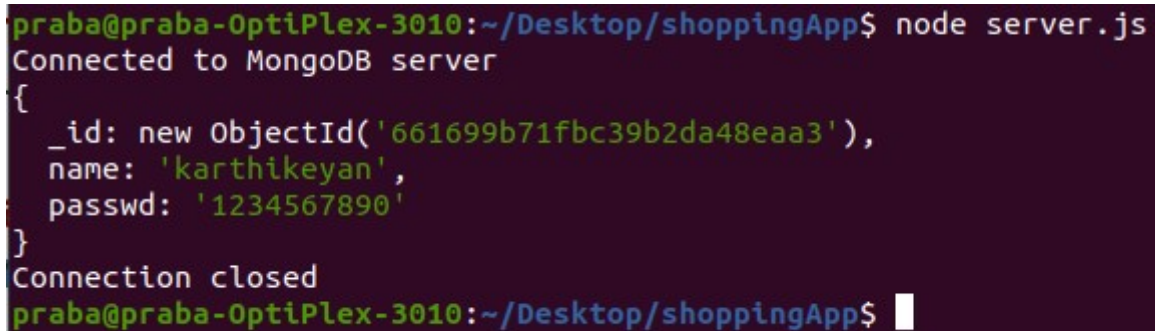
```
praba@praba-OptiPlex-3010:~$ cd Desktop/
praba@praba-OptiPlex-3010:~/Desktop$ mkdir shoppingApp
praba@praba-OptiPlex-3010:~/Desktop$ cd shoppingApp/
praba@praba-OptiPlex-3010:~/Desktop/shoppingApp$ touch server.js
praba@praba-OptiPlex-3010:~/Desktop/shoppingApp$
```

Install packages run this command inside the project dir
> npm install mongodb

server.js

```
const { MongoClient } = require('mongodb');
const uri = "mongodb://localhost:27017";
const dbName = "ipLab"; // Database name
const client = new MongoClient(uri);
async function connect() {
  try {
    await client.connect();
    console.log("Connected to MongoDB server");
    const db = client.db(dbName);
    const collection = db.collection("shoppingapp"); // collection name.
    const documents = await collection.find().toArray();
    documents.forEach(doc => {
      console.log(doc);
    });
  } catch (err) {
    console.error("Error connecting to MongoDB:", err);
  } finally {
    await client.close();
    console.log("Connection closed");
  }
}
connect();
```

> node server.js



```
praba@praba-OptiPlex-3010:~/Desktop/shoppingApp$ node server.js
Connected to MongoDB server
{
  _id: new ObjectId('661699b71fbc39b2da48eaa3'),
  name: 'karthikeyan',
  passwd: '1234567890'
}
Connection closed
praba@praba-OptiPlex-3010:~/Desktop/shoppingApp$
```
